

From The STAFF

W.T.F.D.A. Headquarters, P.O. Box 97, Calumet City, IL 60409

WTFDA CONVENTION...As this is being prepared, it's almost time for the 1982 WTFDA Convention. Word has it that a good turnout will be there, and we hope to have a report on the activities in an upcoming VUD. If you couldn't be there this year, there's always next year. For the 1983 WTFDA Convention, we'd like to hear from members interested in hosting the gettogether. Would you like to host WTFDA Convention 1983? Let us know. We can tell you what it takes to host our convention. If you are seriously interested, drop us a line. If we receive more than one bid, we'll have a membership vote. Next month, we'll have details on how to submit a bid and word on the closing deadline, plus word of any early bids.

THANKS, RALPH...We know that NORTHERN FM DX editor Ralph Strobel must be very tired right now; he just completed nineteen pages of DX reports for his column. This is a record for the recent history of the club, and one that we don't want to see broken. Seriously, that's more to expect from your column editors--PLEASE help us out by making your reports more concise and try to limit your comments during the busy DX months. We do not limit space for DX reports in the VUD; that's our policy. However, large VUDs can end up costing the club lots of money, so try to remember to be brief when you can. In the meantime, we especially like to hear from new members and first time reporters. This is your club--why not contribute by checking in with your DXing results from time to time.

LONG HAUL UHF...Recently, Jim Pizzi in New Mexico has been finding out what it's like to live on the western end of one of the best long-haul tropo slots on the North American continent. What might be regarded as the "Sunbelt tropo path" extends from the edge of the Rockies in eastern New Mexico to the southern tip of Florida. On June 6th and 7th, Jim caught 1100 mile UHF ducting to Atlanta. What's next? When the season's right again, we're betting that many alltime DX records will be set by Jim; and Florida-to-New Mexico ducting is possible!

VOLUNTEER UPDATE...We've heard from a few members willing to take over the club positions that we mentioned in the last few issues. Many thanks to those who are offering to help. More word on this will be in the next VUD.

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MAILBOX

John Zondlo
1308 SW 74th, Apt. 421
Oklahoma City, OK 73159
(405) 681-5991
Deadline: 5th

New Members:

Michael Florek

458 W. Rodney French Blvd.

New Bedford, MA 02744

Gord Lansdell

156 W. 18th St.

N. Vancouver, BC V7M 1W4

George Mileon

14 Border St.

Lynn, MA 01905

Clifford Rames

5724 Grant St., Apt. N

Hollywood, FL 33021

David Raudenbush

RD 4, Box 404

Pine Grove, PA 17963

Patrick Rudolph

382 Allen Drive

Wadsworth, OH 44281

Renewals:

Earl Albin, Richard N. Allen, Gerald Barkow, John Basehore, Murray Bernstein, Bill Coleman, David Curvin, Mike DeRoo, Mike Dewan, Patrick Durkin, Jr., John Ebeling, Jim Gill, Lawrence Glass, Robert Goodman, Christopher Hanley, Robert Heckenlively, James Herkimer, Jim Jennings, William Johnson, James Kingsbury, Paul Kinnaly, Jr., Jim Korn, Rolland Lindblade, Tom Little, Nick Lombardi, Alan Michalek, Randy Miltier, Y. Noffsinger, Rod O'Connor, Ronald Furdue, Daniel Sampson, Pete Skinner, Dr. James Snow, Steven Sprachman, James Stiles, Harry Teufel, Alphonse Tobia, Roger Winsor, Jeff Wolf, Tracy Wood, Robert Zent.

Rejoin:

Richard Troyer-13130 Wooster St. NW-Massillon, OH 44646

Address Changes:

Saul Chernon-79 Ridge Drive-Toronto, ON M4T 1B6
Ronald Green-1603 Campbell-Building 3, Apt. 11-Joplin, MO 64801
David Legler-128 E. Magnetic St.-Marquette, MI 49855
Frank Luman-5056 E. Hinsdale Place-Littleton, CO 80122
Lee Prescott-1902 E. Washington, #53-Harlingen, TX 78550
Rich Turcsany-37 Windsor Place-Fairfield, CT 06430
Don Voegelé-137 Colton Place-San Jose, CA 95110
Richard E. Wood-4337 Shaw-St. Louis, MO 63110

Renewals Due in September:

Howard Bartlett, Mike Bugaj, John Clemmer, Doug Dornbos, James Filler, Richard Gagnon, Jim Gould, Glenn Hauser, A. Lazarus, Kurt Nelson, Richard Prelinger, Robert Ross, Edward Sirovy, John Walters, Larry Weil, David Wilson.

Leading off the new members this month is GEORGE MILEON. He writes, "Your TV Atlas listed a GW Electronics as a source for TV equipment. Do not buy anything from this guy, in that he has never delivered on an order made last February, 1981, nor has he made a refund. I presently have the postal inspectors and bank authorities in Indiana checking into this guy. In early January I received a test pattern on my TV of a WSTG. No channel number was on the pattern, but according to my TV it should have been channel 62. Does anyone in your association know anything about this station? I have not see the pattern since. My antenna was facing west from Lynn in order to get the best reception of this station, a picture which was very good indeed. Is anyone interested in FM quad info? WBCN in Boston was broadcasting in quad some time ago, and may be doing so again in the near future, if I read my information from Technics correctly. There are about 15 FM quad receivers in WBCN's storeroom. I was supposed to get one to listen to the test broadcasting thanks to the efforts of DB magazine. The testing went as scheduled, but the station engineer balked at giving me one of the quad receivers. Is subscription TV an area of interest to you as well as MDS broadcasting?" Welcome to the club, George. The answer to the last question, incidentally, is yes.

Next up is CLIFFORD RAMES, who is associate director of R&D at the University of Miami School of Medicine. Here's his DX gear: Sears color receiver, Rayson UHF preamp (Performer II), Radio Shack 15-623 indoor UHF antenna, homebuilt 13 element yagi antenna tuned to channel 34, homebuilt indoor double-rhombic UHF antenna (rotatable). He writes, "I have been DXing for about 8 months, mostly UHF. I have logged all S. Florida

(continued on page 58)

Bob Zent - 1835 Fruit St. - Huntington, IN 46750

6/1 tr
2030 WUTC 88.1 TN Chattanooga, c 410
2058 WMBW 88.9 TN Chattanooga, lcl. nx 410
2059 WBYN 89.7 TN Chattanooga, g, ID 410
2326 WUOT 91.9 TN Knoxville, c, ID 355
6/2 tr
0006 WSKZ 106.5 TN Chattanooga, r, 410
"It's clear and 64 at Chattanooga's KZ-106"
0023 WZYP 104.3 AL Athens-Huntsville, 440
r, station promo
0029 WQEZ 96.5 AL Birmingham, m, ID 520
0032 WAPI 94.5 AL Birmingham, lcl. wx 520
0034 WDJC 93.7 AL Birmingham, g 520
0040 WENN 107.7 AL Birmingham, s 520
"WENN & FM plays Birmingham's favorites"
0132 WRAS 88.5 GA Atlanta, lcl. PSA, ID 500
6/7 tr
0615 WGSO 91.5 TN Signal Mountain, r,
"You're listening to WGSO, the voice of
Chattanooga State," Chattanooga 88.1,
88.9, 89.7 quite strong
6/7 Es
1608 WXYZ 92.5 CT Waterbury, 630
call letters heard
1612 WHJY 94.1 RI Providence, lcl. wx 710
1614 WSOX 94.9 MA West Yarmouth, 770
m, local ad
1617 WYIC 96.5 CT Hartford, r,
"96-TIC FM"
1624 WMY5 98.1 MA New Bedford,
call letters and local ad
1629 WGBH 89.7 MA Boston, ID 730
1659 WJMJ 88.9 CT Hartford, m, ID 650
1709 WSDH 91.5 MA Sandwich, r,
"WSDH
newstime..."
1714 WMAS 94.7 MA Springfield,
station promo
1723 WBOS 92.9 MA Brookline-Boston, r, 730
"Boston's new 92.9-FM"
1725 WROR 98.5 MA Boston, s, 730
call letters
1727 WPLM 99.1 MA Plymouth, 750
j, (big bands), local wx
1731 WCRB 102.5 MA Waltham-Boston, c, ID 730
1736 WHUE 91.7 CT Storrs, t, ID 675
1737 WMBR 88.1 MA Cambridge, j, ID 730
1746 WHYN 93.1 MA Springfield,
station promo
1747 WHAV 92.5 MA Haverhill, 730
"Wave-FM," station promo
1754 WFLY 92.3 NY Troy, r, call letters 600
47 new loggings this month, the result of fantastic openings into two much needed areas. Let you think I'm cheating, let me tell you that I have listed no tentatives. For example, where I've designated "call letters," it means that all four call letters were heard. When a station was identified by a local ad, the city of license must have been mentioned at least once. The only exceptions are station slogans such as "96-TIC" or "Kilo-94," which are obvious and can be identified by this. However, most slogans are useless and I would never count a station if only a simple "Q-106" or "Z-94" was heard.

Can anyone help me with a couple of unidentifieds? Does anyone know the location of KSIT 104.5 or KXRC 93.7? These were heard during the opening to Colorado and Wyoming. Neither is listed in the new FM Atlas. Any help will be appreciated.
73s, Bob

* * * * *

Harry J. Hayes - 9 Henry Street - Wilkes-Barre, PA 18702

Equipment: Superadio- FM-4G antenna and CM amp. at 25 feet in Thornhurst, PA
*Zenith Trans Oceanic w/whip from Wilkes-Barre, PA

5/7 tr 2318 WMBV 97.3 NJ Millville, good w/T-40 on the adult side 135
2330 WNNN 101.7 NJ Salem, black religion, fair signal 135
2333 WKHI 99.9 MD Ocean City, fair thru semi-local WQQQ, T-40 210
2345 WSNJ 107.7 NJ Bridgeton, up to localike from its usual 135
fadey quality on bad days.
5/8 tr 0024 WRDR 104.9 NJ Egg Harbor City, EL mx, good thru local WWDL 140
0100 WWCN 94.3 NJ Avalon, fair to poor w/EL mx 150
0130 WGRF 99.3 NJ Pleasantville, auto r, into "The Source" 140
0205 WSLT 106.3 NJ Ocean City, excellent, EL mx 145
0838 WKHI 99.9 MD Ocean City, local on antenna and in at good 210
listenable level on little portable w/whip.
0852 WRDR 104.9 NJ Egg Harbor City, localike o/local 140
0900 WRIO 102.3 NJ Cape May, good, "Heavenly Radio" 160
0912 WQQQ 104.7 MD Ocean City, fair, not in good this opening 210
1000 WGHM 92.7 DE Rehoboth Beach, v/good w/big bands. This 180
is a tough channel with WYZZ on 92.9.
5/15*Es 1951 KZZBt 95.1 TX Beaumont, k and "B-95" ID
5/16*Es 1535 WQID 93.7 MS Biloxi, "Q-93," strong
5/31 Es 1240 WAIa 97.3 FL Miami, strong, "WA-1-A"
1240 WPCvt 97.5 FL Winter Haven, strong with nx
6/7 *Es 1649 KSSN 95.7 AR Little Rock
1653 KISR 93.7 AR Fort Smith
1700 KTCS 99.9 AR Fort Smith
1701 KPXI 100.7 TX Mt. Pleasant, Mor mx
1715 KPLX 99.5 TX Dallas, strong, k
1719 KZEW 97.9 TX Dallas, r, thru local WVCD
1721 KMOD 97.5 OK Tulsa, r
1722 KWFC 97.3 MO Springfield
1727 KMCK 105.7 AR Siloam Springs, contest, "K-106" IDs
1740 KWEN 95.5 OK Tulsa, no call ID. Does not call self "Queen" now
1748 KCFM 97.1 MO Florissant, long wx forecast
1750 WCRG 95.7 IL Effingham, short skip, roughly 600 miles
1753 KFBdt 97.7 MO Waynesville, call heard
1755 KTEK 93.3 OK Ada, very common one on skip here
1756 KEGlt 97.1 TX Fort Worth, "Eagle Rock," no calls
1800 KLKC 93.5 KS Parsons, woman w/nx, many IDs, loc. ment.
1803 KLNK 98.9 OK Oklahoma City, IDs, next to strong WKRZ
1816 unID 93.9 TX Spanish programming, heard previously. (KESS?-RS)
1818 KOMB 103.9 KS Fort Scott, strong, r, many IDs
1835 KLZR 105.9 KS Lawrence, "Lazer Rock"
1835 KRBE 104.1 TX Houston, traffic report, "KRBE Eagle"
1836 KSKG 99.9 KS Salina, "99-KG"
1842 KMEZ 100.3 TX Dallas, EL mx
1850 KJCK 94.5 KS Junction City
1853 KFKF 94.1 ?? ? Many IDs, but I don't know where
1859 KYES 93.7 KS Salina, k
1901 KXLS 99.7 OK Alva-Enid, excellent non-fading signal
1916 KVIL 103.7 TX Dallas, lousy signal
1920 KMGC 102.9 TX Dallas, good signal, r
1922 KTXQ 102.1 TX Fort Worth, good, no CID, "Q-102"
2020 KMBR 99.7 MO Kansas City, r
6/8 *Es 1830 KYCK 97.1 ?? This call and "Kicker." I assume Crookston, MN
1831 KCJB 97.1 ND Minot, fighting w/KYCK
1834 KYTN 94.7 ND Grand Forks, "Y-95"
1850 KXGRt 96.9 MN Grand Rapids, local ads
1901 CHMM 97.5 MB Winnipeg, ex-CJOB, good Mor and nx
6/12 Au 2000 WRJA 88.1 SC Sumter, mult. ID, antenna due North, weak
6/13 Es 2110 KSSN 95.7 AR Little Rock
6/15*Es 2004 WKSJ 94.9 AL Mobile, "KSJ"
2012 WUOA 95.7 AL Tuscaloosa, old r, IDs
2012 WDJct 93.7 AL Birmingham, ment. Birmingham

- Remarks Continued -

6/10 Es
1831 MUF off FM
6/11 tr
2240 Excellent Delmarva - SE VA tropo
2254 WSFL 106.5 NC Bridgeton, in good 360
2255 WMYK 93.7 NC Elizabeth City, rp
6/12 tr
0540 WAZZ 101.9 NC New Bern, k, ID 365
2100 WBBR 95.3 NC Wanchese, m
2130 WBCI 96.5 VA Williamsburg, o/local
2135 WTVB 94.1 VA Yorktown, k
2310 WKWI 101.7 VA Kilmarnock, s/off
6/13 Es
2108 KMYO 92.1 OK Broken Arrow, ID, "Cameo" 6/24 tr
MUF jumping up and down all night, occas- 0545 CJRT 91.1 ON Toronto, c, ID
New record - 27 new FM stations were received in a 3 1/2 hr. period - 6/7 - 1655-2025.
Plenty of good Es in the first half of June, but nothing in the second half. Not a
whole lot of tropo in June. Hope conditions pick up in July. Broomall total: 476.
73's Dan

* * * * *

Patrick Durkin, Jr. - 1940 Oakdale Ave. #305 - West St. Paul, MN 55118
Equipment: Pioneer SX-850 with dipole antenna or GE Superadio 7-2880B w/whip, both
antennas at 35 ft. (West St. Paul). SX-850 with Winegard CH-6065 at 30 ft. in West
Allis; Superadio in Freehold, NJ.

4/14 tr (from West St. Paul)
0020 KNNS 96.9 MN Grand Rapids, 175
ex-KKGR, ex-96.7, \$
4/24 tr
0040 WAPL 105.7 WI Appleton, r\$ 230
4/25 tr
2248 WHTL 102.3 WI Whitehall, r mono 90
5/3 tr
0105 KNWS 96.5 SD Sioux Falls, g\$ 200
0117 WZUU 95.7 WI Milwaukee, r\$ 280
5/3 ms
0136 KGOR 99.9 NE Omaha, r\$ 290
"...KGOR with Kool and the Gang..."
5/19 tr (from Freehold, NJ)
0059 WSRB 96.1 MA Worcester, m 185
0112 WTIC 96.5 CT Hartford, r 135
0155 WXSX 107.9 MA Medford, r 220
0202 WQGN 105.5 CT Groton, r 135
0207 WDRG 102.9 CT Hartford, r 135
0214 WROR 98.5 MA Boston, r 215
0216 WRCH 100.5 CT New Britain, r 130
0253 WCWP 88.1 NY Brookville, r, 100w 50
0305 WWMJ 88.9 CT Hartford, g 135
6/10 Es (from West St. Paul)
1854 WBLX 92.9 AL Mobile, s\$ 1045
1856 WKSJ 94.9 AL Mobile, k\$ 1045
6/15 Es
1725 WMMK 92.1 FL Destin, k\$, "K-92" 1060
1727 WKYD 98.1 AL Andalusia, k\$ 1010
1729 WQUE 93.3 LA New Orleans, r\$ 1040
1730 WKSJ 94.9 AL Mobile, k\$ 1045
1740 WJLQ 100.7 FL Pensacola, r\$ 1040
1751 WPHO 99.1 MS Pascagoula, m\$ 1030
1753 WBLX 92.9 AL Mobile, s\$ 1045
1756 WTVY 95.5 AL Dothan, k\$ 1030
1759 WLPR 96.1 AL Mobile, m\$ 1045
1817 KQYX 94.1 TX Beaumont, m\$ 1025
Well, it's been a long time since I've reported to this column, but there's been
little to report up until this month, when DX literally exploded from the dial. June
was the month in which I received my first E-skip in Minnesota. Thanks to John
Ebeling for the Es tips on 6/10 and 6/17.

- Continued -

I spent the majority of May away on a business trip to Freehold, NJ, a town of 10000
in central NJ, about halfway between Philadelphia and New York City. I'm surprised
that anyone in NJ can get decent DX, since the dial is so full of local and semi-lo-
cal stations! The DX I have listed for Freehold occurred on a night when coastal tr
was in full force. On TV that night, using a simple loop antenna, I received UHF
stations from Norfolk, VA to Boston, MA. There was also E-skip while I was there,
but it didn't make it to FM.
I also went to visit my parents back in West Allis at the end of June and was able
to add seven new stations to my West Allis log, five via Es. I would have probably
had more, but I had to leave in the middle of the skip session.
I'm hoping for more E-skip like we had in June, although I probably won't be around
Minnesota to see it. I'll be taking another business trip soon, this time spending
four weeks in Muncie, IN, beginning in mid-July. It'll be interesting to see what
east-central IN DX is like in the middle of the summer, and I'll probably stop by to
visit Ralph. Until then, best of DX!
Pat

* * * * *

Fred McCormack - 135 Prairiewood Drive - Fargo, ND 58103

1/3 Es
1830 WAEV 97.3 GA Savannah, r 1315
5/15 Es
2142 KKED 90.3 TX Corpus Christi, c 1315
2157 KPMG 107.9 NM Albuquerque, r 960
2203 KYKN 95.3 NM Grants, r, "K-95" 990
2218 KIQX 101.3 CO Durango, 870
r, "Kicks-101"
2239 KMTS 92.7 CO Glenwood Springs, k 730
2240 KQIX 93.1 CO Grand Junction, 800
r, "The Q"
5/15 tr
2259 KDCR 88.5 IA Sioux Center 265
5/16 Es
1916 KLKE 94.3 TX Del Rio, AM-FM // 1230
1929 KRWG 90.7 NM Las Cruces, 1135
NPR, "FM-91"
2028 KMJR 91.5 AZ Phoenix, NPR 1225
2034 KJJJ 92.3 AZ Glendale, 1225
k, "KJ-92"
2042 KTTY 95.1 AZ Yuma 1355
2105 KKEE 94.3 NM Alamogordo, AP 1080
5/28 AE
0016 CBYG 91.5 BC Prince George, 1235
CBC mono
6/6 Es
1639 KITY 92.9 TX San Antonio, r 1210
1653 KMFM 96.1 TX San Antonio, 1210
Sat. Radio Net
1726 XHRE 105.5 COA Piedras Negras, 1270
R. Ensueno
1800 KNBT 92.1 TX New Braunfels, k 1190
The above are all of my new FM loggings so far this year. They are representative
of the openings which I have caught. I would rate the Es season as good. I just
wish I had more time to listen when conditions are good.

* * * * *

Richard Reese - 421 Marion St. - Jersey Shore, PA 17740
Equipment: Panasonic RF-1150 & GE Superadio

6/3 Es (107.9 is MUF)
2033 WBYU 95.7 LA New Orleans, ID 1075
2035 KZZQ 94.3 LA Golden Meadow, "Z-94" 1520
2036 WCKV 92.3 LA Laplace, ID
2037 WRPM 107.9 MS Poplarville, ID
(Plus unIDs til about 2100)
6/7 Es (108+ is MUF)
1517 WTVY 95.5 AL Dothan, ad 840
6/6 Es
1815 XHAA 93.1 TAM Reynosa 1435
1830 KFIM 92.3 TX El Paso, r 1165
6/7 tr
2136 KQCR 102.9 IA Cedar Rapids, 425
r, "Q-103"
6/15 Es
1944 WAPI 94.5 AL Birmingham, 1060
"95-Rock"
1947 WJMJ 94.3 TN Lewisburg 945
2036 WZGC 92.9 GA Atlanta, r, "Z-93" 1115
6/17 Es
1950 KFRA 105.5 LA Franklin 1215
2019 KBIU 103.7 LA Lake Charles 1165
2038 KZOM 104.5 TX Orange, r 1170
2040 KIOC 106.1 TX Orange, r, "K-106" 1170
2052 WNSL 100.3 MS Laurel, "SL-100" 1125
2105 WPAP 92.5 FL Panama City, AP, k 1295
2118 KUOL 101.7 AR Mena, r, AM-FM ID 860
2127 KRMD 101.1 LA Shreveport 1005
2131 KKKZ 107.5 LA Ruston, k 1015
2140 WQNZ 95.1 MS Natchez, k 1095
2146 KWEZ 104.1 LA Monroe, "EZ-104" 1025
2210 WTXI 102.3 MS Ripley, k 930
2228 WLWI 92.3 AL Montgomery, 1145
k, "I-92"
2244 KAFM 92.5 TX Dallas 975
2250 WKBK 92.3 TN Milan 865
6/26 Es
1206 WJIZ 96.3 GA Albany 1250
1216 WCUP 100.3 GA Tifton, 1275
"cup radio"

- Continued -

VHF UTILITY DX

Donald L. Blevins
499 Monterey Avenue
Odenton, MD 21113
phone: 301-551-8623

IN SEARCH OF PSB.....UTILITY DX

Hank Holbrook 7211 Chestnut Street Chevy Chase, MD 20815.....

4/19				
0124	CG 41471	157.15	Mouth of Rhodes River, MD	Coast Guard Vessel
4/25	WXW 7470	157.10	Chester River-Kent Narrows, MD	LUV TOO
5/2				
1422	WYO 6127	156.80	#71 Channel Marker	A NET
1452	WXZ 8311	156.80	2 miles NE of Herring Bay	SWEETIE TOO
5/23				
1458	WSZ 5729	157.15	Tilghman Creek, MD	TWO BELLIES
5/24				
	WSZ 5729	156.80	St. Micheals, MD	ST MICHEALS HARBOR MARINA
5/29				
0145	WYR 2395	157.10	Falesville, MD	REVERIE
0228	WZH 2360	157.30	Herring Harbor Marina, MD	FMSTIC
1746	WYN 7461	157.30	Annapolis, MD	YANKEE DOODLE
1802	WYC 4609	156.80	Choptank River, MD	YANKEE DOODLE II
5/31				
0100	WXL 4187	157.30	Mid-Chesapeake Bay, MD	MOONPIE

Donald L. Blevins 499 Monterey Avenue Odenton, MD 21113

6/26/82				
1043	KAA 204	42.06	Saint Joseph, MO	Highway Patrol
1043	-----	42.06	Emo, Ontario	Ontario Provincial Police
1043	KDK 617	39.50	New Roads, LA	Pointe Coupee Parish Sheriff
1044	KKC 747	39.50	Alexandria, LA	Rapides Parish Sheriff
1046	KKA 818	39.50	Cameron, LA	Grant Parish Sheriff
1046	KKA 781	39.50	Arcadia, LA	Bienville Parish Sheriff
1046	KKC 520	39.50	Coushatta, LA	Red River Parish Sheriff
1100	KTZ 370	37.26	Whitehouse, TN	Police Department
1100	KIJ 581	37.26	Sevierville, TN	Sevier County Sheriff
1153	KAB 302	42.06	Jefferson City, MO	Highway Patrol
1153	KAA 522	42.12	Willow Springs, MO	Highway Patrol
1153	KAA 202	42.06	Lees Summit, MO	Highway Patrol
1158	KIC 889	37.26	Lebanon, TN	Lebanon County Sheriff
1200	KAA 270	42.06	Poplar Bluff, MO	Highway Patrol
1205	KSB 234	42.60	Du Quoin, IL	State Police
1205	KSA 939	39.50	Marion, IL	Police Department
1207	KSC 813	42.42	Fort Wayne, IN	State Police
1212	KSA 775	42.60	Macomb, IL	State Police
1213	KKC 227	44.62	Little Rock, AR	State Police
7/3/82				
0910	KNAA 582	159.135	Alexandria, VA	State Police
0911	KGA 815	154.665	State Roads, DE	State Police
0912	KIC 367	159.165	Culpeper, VA	State Police

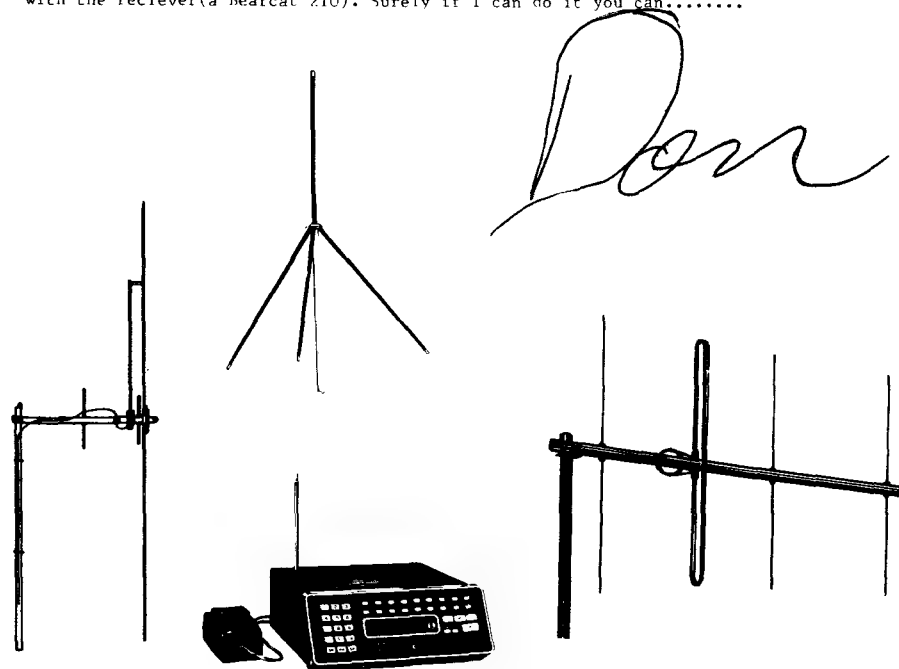
William R. Hepburn C/O 1950 Monreal Road Cornwall, ON K6H 6L2

2/8/82				
1800	XLM 300	162.55	Montreal, PO	Weatherradio Canada
2/10/82				
1840	VDO	161.65	Cardinal, ON	Cardinal Coast Guard
2/11/82	VFN	161.65	Montreal, PO	Montreal Coast Guard
3/5/82				
1903	VZM	108.1	Cornwall, ON	Training VOR
Thomas J. Yingling, Jr.				
			221 Pinewood Road	Baltimore, MD 21222
6/7/82				
2002	KSB 233	42.62	Elgin, IL	State Police
2004	KSG 897	42.56	Litchfield, IL	State Police
2030	KGJ 616	39.50	Spotsylvania, VA	Spotsylvania County Sheriff

Well that's all folks.....

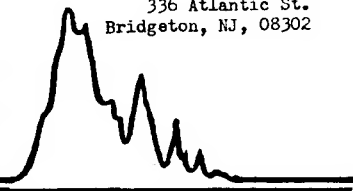
I must remind you that I am out of material for the time being.....I have exhausted all my material submitted to me for the feature. I am hoping that you will submit material for the August issue. I know there has been some good DX in the last two months. Why not spend some time with your scanner and let your fellow members know what is going on?

Please remember that all the DX logged by this editor is with a screw in whip supplied with the receiver (a Bearcat 210). Surely if I can do it you can.....



METEOR SCATTER INSIGHTS

Bill Fahber
336 Atlantic St.
Bridgeton, NJ, 08302



METEOR BURST COMMUNICATIONS SYSTEMS

We have been studying meteor scatter for some time now. Many of us have seen it and logged several distant stations by it on television and FM radio. Although a curious mode of propagation, one question arises: Of what practical value is it?

It was suggested as far back as 1951 by V. C. Pineo (National Bureau of Standards, Nov., 1951) and D. W. R. McKinley (cf. McKinley, "Meteor Science and Engineering, McGraw-Hill Book Co., Inc., 1961) that meteor scatter could be used for communications. In 1963, test signals were transmitted from Cedar Rapids, Iowa to Sterling, Virginia, a distance of 750 miles, at a rate of about 4000 words per minute. This project demonstrated the feasibility of a meteor burst communications system.

There are several reasons for this interest in meteor burst communications. While lower radio frequencies are capable of beyond-line-of-sight (BLOS) reception due to the ionosphere, they are also overcrowded. Meteor scatter provides a means by which the higher frequencies are capable of BLOS reception, avoiding a complex and expensive system of microwave relays. Another reason for current interest is the current progress in technology, specifically microprocessors and inexpensive solid-state memory systems, which make a meteor burst system feasible.

The military also found advantages. During a nuclear war satellite relays and HF signals could be disrupted, but MS would still be feasible. Two other factors which make MS useful, even during peacetime, are Low Probability of Intercept (LPI) and Antijam. LPI is brought about by the fact that messages are transmitted only during the short lifetime of a useful trail, and is received only in a small area, or "footprint," which includes the receiver. And since communications would take place on higher frequencies where BLOS reception is not possible, it would be more difficult for the enemy to jam the signal.

Three types of communications systems are feasible by meteor scatter: point-to-point, netted, and broadcast. The point-to-point system calls for a master station, which transmits a steady signal, and a slave station, waiting for a properly oriented trail to reflect that signal to it. While waiting, messages are fed into its memory

system. When a useful trail is produced, the slave station will pick up the master station's signal, activate its transmitter, and send messages to the master station for as long as the master signal's strength remains above a minimum tolerance. When the master signal becomes too weak, the slave station shuts off, waiting to continue its message where it left off when the next useful trail is produced.

There is some degree of error and message loss in such a system. The closer the two frequencies are, the greater the interference between them. The farther apart they are, the greater the chances of the slave station receiving the master signal and transmitting messages when the slave signal has already faded out at the master station. The tolerable signal strength from the master station is another factor. The weaker the tolerated signal strength, the more likely the master station may not be able to receive the slave signal. Requiring a stronger signal to activate the slave station will mean fewer messages being sent.

A netted system is being built by the Bonneville Power Administration, called a hydromet (short for hydro-meteorological telemetry network). This system will monitor five slave stations around the northwestern United States, receiving coded information about stream levels, precipitation, date, and time, on a short message of 0.1 second duration.

No significant work has been done yet on a broadcast system of any sort. Such a system would require a transmitter constantly transmitting messages of short duration. It would probably take several meteor trails before any receiving station could obtain the message in its entirety.

An interesting method for amateur radio communications is described by James D. Stewart, WA4MVI, in his book, *VHF Radio Propagation*, printed in 1978 by Howard W. Sams & Co., Inc., and in an article in the December, 1977 issue of QST. Two amateur radio operators would agree ahead of time to attempt to communicate at a certain span of time on a certain frequency. With their clocks synchronized, one would transmit during the first and third quarter of each minute and the other would transmit during the second and last quarter. When one of them hears the other's signal being reflect-

METEOR SCATTER INSIGHTS

AUGUST, 1982

ed from a meteor trail he then includes a code describing the extent of his reception. They both continue transmitting call letters and codes until both sides can hear one another's code, letting them know that both sides are confirming reception.

Meteor scatter has been used in other ways than sending coded messages. In 1957, RCA experimented with sending low-resolution facsimile black & white images on a 27 kHz band for a distance of 910 miles on 40 MHz. Raytheon Corp. has been monitoring television broadcast stations from distances of 600 to 1300 miles by means of meteor bursts. (This would be an interesting subject to report on. If I can get more on this, and I think I can, I'll report on it. I wonder if anybody has looked into FM stereo and meteor scatter.)

SHOWER METEORS FOR THE NEXT FEW MONTHS:

Although this issue will no doubt reach you too late for the Perseid meteor shower's peak, I thought it best to provide a few statistics for you to compare with your loggings. The shower was to peak around noon, EDT on 8/14/82. But with the radiant at its highest around 5:40 a.m. local time, best results should be in the early morning hours of 8/14, with results not quite as good on the morning of 8/15. The shower is the result of particles breaking off from comet Swift-Tuttle, which has a 120-year orbit. The exact figure could be off by a few years. Since it last was seen in 1862 (in fact, its only appearance), it should be due this year or within the next few years. To date, it has not been seen yet. Spectacular showers have appeared in the past during years supposedly right after the calculated perihelion. With perihelion ready to occur at any time, perhaps we can look out for a spectacular within the next few years. This could possibly explain the increase in the rate of the perseids over the past few years. ZHR ranges from 50 to 100, so let's hope for the upper limit.

The DRACONIDS consist of a very narrow stream of meteors. It lasts three days, with only one hour of that time greater than one fourth of its greatest strength. That hour is at 5:00 a.m. EDT on 10/10/82. Unfortunately, the radiant will be grazing the horizon at that time, so expect that shower to be a fizzle. Better luck next year, and best results in 1984, when the radiant will be almost directly overhead during the peak hour.

Halley's Comet, which is due to return in a few years, is responsible for the ORIONIDS, which can be seen during the entire month of October, peaking on 10/21. There are differences of opinion about the exact time of the peak, but you can expect the entire day to be close to peak strength. With the radiant at its highest around 4:20 a.m. local time (give or take a half hour), best results will be on the morning of 10/21. Although ZHR is only 10, it combined with the high rate of sporadic meteors in the morning should produce good results.

There's an interesting story behind the ANDROMEDIDS, which helps to show the relation between comets and meteor showers. There used to be a comet called Bilea's Comet, which orbited the sun every 6½ years. The Andromedids existed at the same time, but nobody ever connected the two. In 1845, the comet was seen to split into two. The two returned in 1852, this time 1½ million miles apart (six times the distance between the Earth and the Moon). The comets never appeared in 1859 and 1866, but in 1872 there was instead a spectacular shower. There was another spectacular shower in 1885. Because of gravitational pull from Jupiter, the center of the stream's orbit has moved farther from the Earth's orbit, and the stream is now much weaker. ZHR is now about 10. The shower lasts from August through November, peaking on 11/14. The radiant is at its highest around 10:00 p.m.

The Leonids (Nov. 14-20) are known to have what are known as "knots," parts along its orbital path where meteors are more concentrated. On certain years, when the Earth passes through the orbit of the Leonids at the location of a "knot," the shower will appear very abundant. Some knots are right behind the associated comet, Tempel-Tuttle, and can be predicted. Others exist, but are unpredictable. The Leonids peak this year around noon EDT on 11/17. The radiant is at its highest around 11:00 p.m., so the two nights either side of its peak should be fairly good.

SPORADIC METEORS:

According to a graph published in the Monthly Notices of the Royal Astronomical Society, Vol. 116, sporadic meteor rates climb from a minimum in February to a peak in July. Figuring that sporadic meteors normally range from about 5 per hour at sunset to 15 at sunrise, we could double that figure for June-August from 10 at sunset and 30 at sunrise. Sporadic meteors rapidly drop in number in September, and make a slight increase over the rest of the year.

WHY ISN'T THERE MUCH MORE METEOR SCATTER?

The second meteor scatter brought out the fact that overdense reflections are created by trails that are visible, and that underdense trails are not visible to the eye. Also, on the lower VHF frequencies, it seems that the total number of bursts, both overdense and underdense, is not too far off from the OHR (observed hourly rate). This being the case, only very few trails actually result in the reception of a reflected signal. Improper orientation is definitely one factor making some trails useless. It has been found that, for a particular path from a transmitter to receiver, only meteors in a very small portion of the sky will reflect the signal. Another factor (I'm not sure how significant) could be the fact that some meteors break up, and signals reflected from more than one point (multiple trails) are often weakened.

REVIEW:

RAYSON HIGH PERFORMER II UHF PREAMP

If you are seriously interested in getting good UHF TV DX performance, you probably already know that a good low noise mast-mounted preamp is the key part of your system. UHF TV tuner noise figures are very poor, even on the latest model sets, and a good antenna simply isn't enough to bring in all the DX possibilities by itself.

A fairly wide selection of commercially available units exists, but almost all of them are effectively useless for TV DXing, due to poor overload rejection, inadequate noise figures, insufficient gain, or a combination of these problems. Also, there's the problem of price. Most of the models available that are good for DXing are not very cheap. The Winegard AC-4990 can cost you around \$100 these days, and the most recent versions of the CMA-Ub are more than \$200.

An interesting trend has been recently taking place in the electronics industry and among experimenters that may prove to be a real boom for TV DX enthusiasts, and low-noise/high gain UHF preamps are at the center of it. For a variety of reasons, mainly led by the increasing interest in reception of UHF pay-TV signals in several U.S. cities, many new preamp circuits have been devised, some of them using newer low-noise devices that have recently started to become widely available to experimenters.

The March 1982 issue of RADIO-ELECTRONICS magazine started a two-part construction article (concluding in their May issue) that featured a couple of microwave transistors built into a PC board in stripline fashion, a standard microwave technique that makes for an almost ideal impedance match through the circuit. The real breakthrough in this project was the price versus claimed performance. For about \$35 in parts, the results were said to be almost unbelievable: 25 dB gain, with a 2 dB typical noise figure, with 3.5 dB nf maximum. The circuit was said to be especially hot on the higher UHF TV channels, unlike many commercially available ones, which tend to start to "roll off" in gain at around ch 60 or so. In fact, the circuit was claimed to have slightly more than 25 dB of gain at ch 70, a real rarity among such units, but not surprising in light of the fact that microwave devices are employed.

Feeling that all this seemed too good to be true, I decided to order an assembled version of the circuit from RaySon, a small electronics parts supplier catering to the experimenter. I've been using it in my UHF system, and have been comparing it with my CMA-Ub (circa 1976). I'm pleased to report that this circuit, sold in assembled form as the RaySon High Performer II, is the best value-for-the-money unit I have ever seen. Currently available for \$47.50 as of this writing, it does live up to its name, something few UHF preamps really turn out to do.

Before you decide to try one out, it should be stressed that comparing such units is often an "apples and oranges" situation. The High Performer II is basically no-frills, with a power supply that consists of a modified balun and calculator-type AC adaptor that probably would make the design engineers at Winegard and Blonder-Tongue laugh (but it serves the purpose). "No-frills" means that you get a unit that may not be as durable as a CMA-Ub (designed for MATV systems), or even an AC-4990 (designed for home TV systems)--but again, remember that this amp is for the experimenter. You may not get the kind of durability or weatherproofing that a CMA-Ub offers, but you do get better results on some channels, plus performance that's a bit closer to state-of-the-art than the higher priced preamps.

The High Performer II's best feature may be good characteristics on the higher UHF channels, specifically the ch 60 to 70 range. Without the proper test equipment, it's hard to give you exact data--but my unit showed consistently better results than the CMA-Ub in that range. Troposcatter

REVIEW: RAYSON HIGH PERFORMER II UHF PREAMP

from WOAC-67 in Canton, OH at about 200 miles was stronger and much more consistent in my system with the High Performer II than it was with the CMA-Ub. A CBC French repeater on ch 68 seems to be very regular with the preamp; with the CMA-Ub, it was never quite as noticeable. Several regional translators in the 60's look better. However, in the ch 50 to 60 range, it's more of a toss-up between the CMA-Ub and the High Performer II.

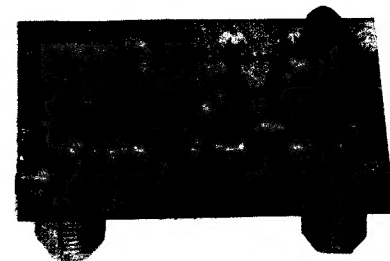
On the lower UHF channels, the preamp does not offer very good results when compared to the CMA-Ub. If compared to a Winegard AC-4990 in this region, it would rank a poor third. The reason for this is simple. The RaySon circuit, remember, uses components that are intended for microwave use, at 2100 MHz and higher. The input filter is a high pass filter intended to reject signals below 500 MHz (near ch 20). The preamp will pass signals below ch 20, but with hardly any real improvement. At ch 14, the gain is down to about 15 dB while noise figure is at about its highest, and the net result is hardly enough to overcome loss in your coax.

If you can live with the drawback of having mediocre results at the bottom of the UHF TV band, this amp will make a good unit for DXing the newer translators in the ch 50 to 69 range. Since it is a two stage circuit, it has much less tendency to overload. It will overload in the presence of a strong UHF local, but if you can null it out (or trap it out), you won't have that much of a problem. Overload rejection is quite a bit better in this unit than in my CMA-Ub, but considerably worse than in an AC-4990, which excels in the presence of one or more strong local signals.

One of the things I like about the RaySon High Performer II is the cross-modulation rejection. I have far fewer problems, at least when my dish is pointed away from the locals on 17 and 29, in my key DX directions. Ch 33, once filled with cross-mod from chs 17 and a local FM station, is now clean. Ch 45, which shows an image plus some ch 17 cross-mod with the local 29 in almost every direction on the CMA-Ub, is much more clear with the High Performer II. This is without doubt due in part to the fact that the unit does not have as much gain on chs 17 and 29 as my CMA-Ub--a mixed blessing, to be sure.

You'll have to provide your own low-loss balun at your UHF antenna terminals if you use this unit, which is only available in the 75-ohm kit or assembled version. RaySon provides you with a modified low-loss balun for the back of your set (modified to take the 9 volt DC power supply) which is quite fragile, due to their modifications. In keeping with good low-loss practices, they recommend use of a good 75-ohm foil shield type coax (Jerrold CAC-11 is a good choice).

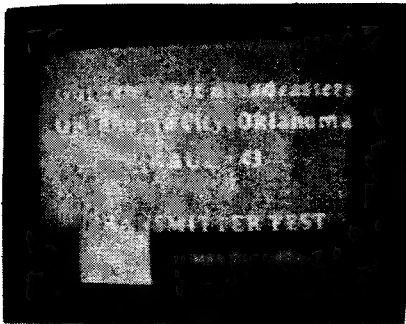
If you'd like more info about this amp, or would like to order one, contact RaySon Electronics, 1010 12th St., Suite 5, Sparks, NV 89431. Their kit version costs \$34.50 plus \$2.00 for shipping (don't try to build the kit unless you've built UHF or microwave-type circuits before--it can be quite tricky to the uninitiated). The assembled version costs \$47.50 plus \$2.00 shipping. My preamp took two months to arrive, and we have heard that it's selling well as a result of the RADIO-ELECTRONICS articles. Thus, if you order the assembled version, you may have a lengthy wait. Keep in mind, RaySon is mainly a parts supplier, not a large company like Winegard. Nevertheless, component quality and construction in my preamp seem first rate. The price is the real breakthrough though, especially to those of us who like to experiment with preamps. For DXing in the ch 50 to 69 range, you probably can't do much better without going to the more exotic and recent state-of-the-art GaAsFET preamps that a few experimenters have put together.



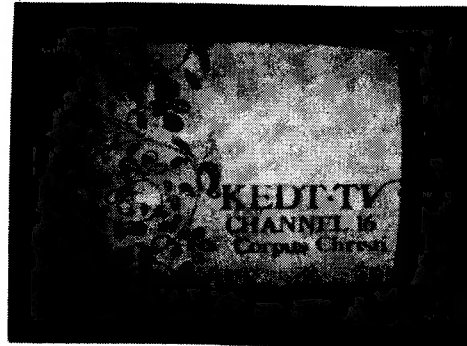
HIGH PERFORMER II BOARD

Mike Reid
109 Arjay Cres.
North York, Ont. M2L 1G6
CANADA

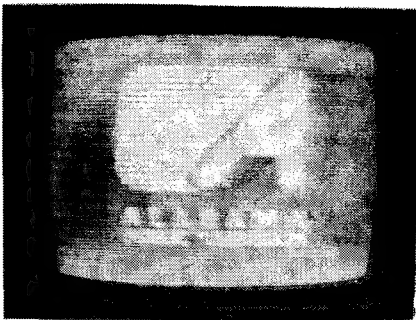
Deadlines: 20'th.



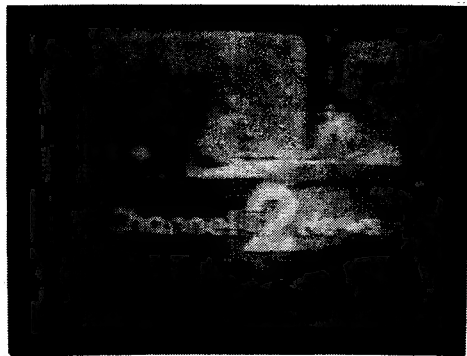
KAUT-43 Oklahoma City, OK
380 mile tropo May/82.



KEDT-16 Corpus Christi, TX
505 mile tropo May/82.



WDIQ-42 Dozier, AL
1008 mile Es.



KNXT-2 Los Angeles, CA
885 mile Es.



KTPX-9 Odessa-Monahans, TX
73 mile tropo

All photos this month are
from my first contributor,
Jim Pizzi of Lovington, NM.

73's

Mike

C.C.I. [UNIDENTIFIED DX]

Robert Grant, N8DZY.
5775 Bishop
Detroit, MI 48224.
August, 1982

TV unIDs:
Jim Pizzi, P.O. Box 1778, Lovington, NM 88260.
1982: Tue 25 May Es ch 2 1802 MDT-- ID as "TYT" (PTA Mexico) (not "TRM" TV Rural Mexico? -RG)
" " " " ch 3 1803 MDT-- "Sheriff Lobo" or "BJ & The Bear"
Wed 26 May Es ch 2 1500 MDT-- "The Brady Bunch" (PTA for 5/26 is NNE)
" " " " ch 5 1500 MDT-- "Happy Days"
" " " " ch 5 1501 MDT-- "Leave It To Beaver"
" " " " ch 5 1506 MDT-- "The Brady Bunch"
Thu 27 May Ms ch 3 0208 MDT-- chs. 3, 11 & 12 w/ NBC logo.
(KOTA, Rapid City, SD. It's satellites are KHSD & KSGW -RG)
" " " Tr ch 19 0418 MDT-- Translator of KGLD-11. (PTA: ENE)
" " " Tr ch 20 0443 MDT-- "Indian Head" Test Pattern. (PTA: ENE)
" " " Tr ch 20 0443 MDT-- Color Bar Pattern (CBP) (PTA: ENE)
(These ch 20's were zero beat to each other)
" " " Es ch 2 1835 MDT-- "M*A*S*H" (PTA: NE)
Thu 3 Jun Tr ch 15 0550 MDT-- "USam" (PTA: E)
Mon 7 Jun Tr ch 46 0116 MDT-- Movie: "Queen Of Sheeba" (PTA East, WTBS-17 in.)
Tue 8 Jun Es ch 4 0927 MDT-- "The Peoples Court"

Robert Goodman, 2030 Hering Ave., Bronx, NY 10461.
1982: Mon 31 May Es ch 3 1626 EDT-- "Tattle Tales" (PTA: SW)
Mon 7 Jun Es ch 3 1630 EDT-- Movie: "Bringing Up Baby" (w/Jerry Lewis) (PTA: W)
" " " " ch 2 1655 EDT-- promo: "The Jeffersons" weekdays. (PTA: W)
" " " " ch 3 1749 EDT-- "Rockford Files" (PTA: W)
Tue 15 Jun Es ch 2 1942 EDT-- "Entertainment Tonight" ø offset. (PTA: SW)

Robert Grant, 5775 Bishop, Detroit, MI 48224. editor.
1982: Mon 7 Jun Es ch 6 1751 EDT-- "Hogan's Heroes" (PTA: S)
" " " " ch 6 1950 EDT-- "The Muppet Show" (PTA: SW)
Thu 10 Jun Es ch 3 1807 EDT-- "Cable News Network 2 News" (PTA: S)
Tue 22 Jun Ms ch 2 0410 EDT-- Diana Davis on news.
Sat 26 Jun Es ch 2 1240 EDT-- Round Color TP w/ID. into 3/4 CBP @ 1245. (PTA: SSW)

FM unIDs:
Jim Pizzi, P.O. Box 1778, Lovington, NM 88260.
1982: Sun 6 Jun Es 96.3 1720 MDT-- ad- "Lebanon Cable TV"
" " " " 88.3 1802 MDT-- mention of Millwaukee & Fort Atkinson. (PTA: NNE)
(Does anyone know if WHWC is part of a state radio network? -RG)
" " " " 96.9 2135 MDT-- "97 Rock" phone number 766-9797. (PTA: W) (KROY checks. -RG)

I would like to thank Robert Goodman this week for bringing to my attention that
"Plywood Minnesota" is a nationwide chain and not a regional one as I had suspected.
(I have never seen them in Detroit, Then again, Who wants to be seen in Detroit? hi,)

73 & gud DX. N8DZY.

NEXT MONTH in the V.U.D.



- AFTER A STORMY JUNE, JULY BRINGS SUMMER HEAT WAVE TYPE TROPO CONDITIONS
- A HOT INDOOR UHF DX ANTENNA FOR APARTMENT DWELLERS THAT'S FAIRLY CHEAP, EASY TO OBTAIN, AND DOESN'T TAKE UP TOO MUCH SPACE
- MORE DX PHOTOS

WTFDA Mailbox (continued from page 3) August 1982
 (Rames, Cont.) UHF within 250 miles with indoor antennas and most VHF.
 Planning elaborate outdoor antenna system. Adjacent channel interference
 my biggest problem. I'm interested in homebuilt antennas. Would like to
 meet TV DX enthusiasts in my area."

Finally, new member DAVID RAUDENBUSH is a miner. He also belongs to
 NRC and IRCA.

Tidbits.....

Here's a few words from member Ronald Purdue: "This week, the 28th
 of June through the 2nd of July, I hope to get the Archer VU-120 replaced
 by a Winegard CH-7084 in order for the AC-9880 to be used for its full
 potential. And, I agree with the club HQ about the computerized mailing
 list. That way, the VUDs will arrive early in the month instead of late
 in the month or into the following month." Ronald, a computerized mailing
 list in itself will neither speed up nor slow down the delivery of the
 VUD. Until now, I've been typing the address labels each month to save
 the club money, and they get to HQ before the month of issue. Only on
 extremely rare occasions have the labels not been in Mike Hogan's hands.
 when he receives the VUD for mailing. A computerized list will make
 bookkeeping easier and eliminate the need for typing the labels each
 month.

Every year we send out a mailing to members who have left the club
 in the preceding year. We get many members back this way, and also get
 some interesting comments. Former member John Demmitt issues an indictment
 against some unnamed members which I hope will be a lesson to all: "Just
 received your invitation to join WTFDA and thought I would explain just
 why I left your organization in the first place. Perhaps it might help
 you in the future. As a beginner to DXing TV and FM, I had many questions
 and attempted to contact some of the WTFDA members in an attempt to have
 certain questions answered. I was very disappointed when I did not hear
 from any of the members I attempted to contact. As a result my questions
 are still unanswered and I am of the opinion that the members feel they
 are better than the new people attempting to join the club. These older
 members are making a very big mistake. An exclusive club with no new
 blood will die in time. Their lack of response told me I was not wanted,
 so I let my membership run out. Your publication did, however, contain
 many excellent articles and the layout was good. I must admit that I miss
 receiving your publication, especially now that there is plenty of DX in
 the air."

September is the last issue for me. See y'all next month....73....jz

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FREE!



GET YOUR OWN copy of this classic "DX Den" drawing with any supply order of
 \$5 or more (does not include TV STATION GUIDE or FM ATLAS orders). Drawn by
 DX artist Harry Hayes for the September 1975 VUD, this print is suitable for
 framing in your own DX den. See the back cover page for a list of supplies.
 Hurry! Supply is limited.